



SEQUENCE LISTING

<110> GROZINGER, CHRISTINA M.
HASSIG, CHRISTIAN A.
SCHREIBER, STUART L.

<120> CLASS II HUMAN HISTONE DEACETYLASES, AND USES RELATED
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<151> 2000-03-03

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<170> PatentIn Ver. 2.1

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 Glu Phe Val Leu Asn Lys Lys Lys Ala Leu Ala His Arg Asn Leu Asn
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 His Cys Ile Ser Ser Asp Pro Arg Tyr Trp Tyr Gly Lys Thr Gln His
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Gly	Arg	Thr	Gln	Ser	Ser	Pro	Ala	Ala	Pro	Gly	Gly	Met	Lys	Ser	Pro	660	665	670
Pro	Asp	Gln	Pro	Val	Lys	His	Leu	Phe	Thr	Thr	Gly	Val	Val	Tyr	Asp	675	680	685
Thr	Phe	Met	Leu	Lys	His	Gln	Cys	Met	Cys	Gly	Asn	Thr	His	Val	His	690	695	700
Pro	Glu	His	Ala	Gly	Arg	Ile	Gln	Ser	Ile	Trp	Ser	Arg	Leu	Gln	Glu	705	710	715
Thr	Gly	Leu	Leu	Ser	Lys	Cys	Glu	Arg	Ile	Arg	Gly	Arg	Lys	Ala	Thr	725	730	735
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His	Trp	Ser	Cys	Val	Gln	Lys	Phe	Ala	Ala	Gly	Leu	Gly	Arg	Ser	Leu	1060	1065	1070	
Arg	Glu	Ala	Gln	Ala	Gly	Glu	Thr	Glu	Glu	Ala	Glu	Thr	Val	Ser	Ala	1075	1080	1085	

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Glu Ala Leu Ala Gly Thr Gly Leu Val Leu Asp Glu Gln Leu Asn Glu
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Phe His Cys Leu Trp Asp Asp Ser Phe Pro Glu Gly Pro Glu Arg Leu
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His Ala Ile Lys Glu Gln Leu Ile Gln Glu Gly Leu Leu Asp Arg Cys
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Val Ser Phe Gln Ala Arg Phe Ala Glu Lys Glu Glu Leu Met Leu Val
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His Ser Leu Glu Tyr Ile Asp Leu Met Glu Thr Thr Gln Tyr Met Asn
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Ile	Ile	Arg	Pro	Pro	Gly	His	His	Ala	Gln	His	Ser	Leu	Met	Asp	Gly	210	215	220
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Lys	Gly	Glu	Met	Ala	Ala	Thr	Pro	Ala	Gly	Phe	Ala	Gln	Leu	Thr	His	355	360	365
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Cys	Arg	Ser	Ala	Gln	Ala	Ser	Val	Ser	Cys	Ala	Leu	Glu	Ala	Leu	Glu	420	425	430
Pro	Phe	Trp	Glu	Val	Leu	Val	Arg	Ser	Thr	Glu	Thr	Val	Glu	Arg	Asp	435	440	445
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Ser	Val	Ala	Val	Ala	Ala	Arg	His	Ala	Gln	Thr	Ile	Ser	Gly	His	Ala	625	630	635	640
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Phe Leu Ala Gly Leu Gln Gln Gln Arg Ser Val Glu Pro Met Arg Leu
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Ala Lys Asp Asp Phe Pro Leu Arg Lys Thr Ala Ser Glu Pro Asn Leu
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Leu	Lys	Glu	Gln	Met	Arg	Gln	Gln	Lys	Leu	Leu	Val	Ala	Gly	Gly	Val	
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Pro	Leu	His	Pro	Gln	Ser	Pro	Leu	Ala	Thr	Lys	Glu	Arg	Ile	Ser	Pro	
			420					425					430			
Gly	Ile	Arg	Gly	Thr	His	Lys	Leu	Pro	Arg	His	Arg	Pro	Leu	Asn	Arg	
		435					440					445				
Thr	Gln	Ser	Ala	Pro	Leu	Pro	Gln	Ser	Thr	Leu	Ala	Gln	Leu	Val	Ile	
	450					455					460					
Gln	Gln	Gln	His	Gln	Gln	Phe	Leu	Glu	Lys	Gln	Lys	Gln	Tyr	Gln	Gln	
465					470					475					480	
Gln	Ile	His	Met	Asn	Lys	Leu	Leu	Ser	Lys	Ser	Ile	Glu	Gln	Leu	Lys	
				485					490					495		
Gln	Pro	Gly	Ser	His	Leu	Glu	Glu	Ala	Glu	Glu	Glu	Leu	Gln	Gly	Asp	
			500					505					510			
Gln	Ala	Met	Gln	Glu	Asp	Arg	Ala	Pro	Ser	Ser	Gly	Asn	Ser	Thr	Arg	
		515					520					525				

Ser Asp Ser Ser Ala Cys Val Asp Asp Thr Leu Gly Gln Val Gly Ala
530 535 540

Val Lys Val Lys Glu Glu Pro Val Asp Ser Asp Glu Asp Ala Gln Ile
545 550 555 560

Gln Glu Met Glu Ser Gly Glu Gln Ala Ala Phe Met Gln Gln Val Ile
565 570 575

Gly Lys Asp Leu Ala Pro Gly Phe Val Ile Lys Val Ile Ile
580 585 590

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<211> 69

<212> PRT

<213> Homo sapiens

<400> 15

His His Ala Lys Lys Ser Glu Ala Ser Gly Phe Cys Tyr Val Asn Asp
1 5 10 15

Ile Val Leu Ala Ile Leu Glu Leu Leu Lys Tyr His Gln Arg Val Leu
20 25 30

Tyr Ile Asp Ile Asp Ile His His Gly Asp Gly Val Glu Glu Ala Phe
35 40 45

Tyr Thr Thr Asp Arg Val Met Thr Val Ser Phe His Lys Tyr Gly Glu
50 55 60

Tyr Phe Pro Gly Thr
65

<210> 16

<211> 75

<212> PRT

<213> Saccharomyces sp.

<400> 16

His His Ala Glu Pro Gln Ala Ala Gly Gly Phe Cys Leu Phe Ser Asn
1 5 10 15

Val Ala Val Ala Ala Lys Asn Ile Leu Lys Asn Tyr Pro Glu Ser Val
20 25 30

Arg Arg Ile Met Ile Leu Asp Trp Asp Ile His His Gly Asn Gly Thr
35 40 45

Gln Lys Ser Phe Tyr Gln Asp Asp Gln Val Leu Tyr Val Ser Leu His
50 55 60

Arg Phe Glu Met Gly Lys Tyr Tyr Pro Gly Thr
65 70 75

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<213> Artificial Sequence

<220>
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<222> (2)..(3)
<223> Any amino acid

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<222> (6)
<223> Any amino acid

<400> 17
Asn Xaa Xaa Gly Gly Xaa His His Ala
1 5

<210> 18
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
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<400> 18
Arg Pro Pro Gly His His Ala
1 5

<210> 19
<211> 7
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<220>
<223> Description of Artificial Sequence: Consensus
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<223> Phe or Tyr

<220>
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<222> (5)..(6)
<223> Any amino acid

<400> 19
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1 5

<210> 20
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<220>
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<223> Hydrophobic amino acid

<220>
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<222> (11)
<223> Gln or Glu

<400> 20
Asp Xaa Asp Xaa His His Gly Asp Gly Val Xaa
1 5 10

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<213> Artificial Sequence

<220>
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<220>
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<223> Hydrophobic amino acid

<220>
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<222> (8)
<223> Any amino acid

<400> 21

Asp Xaa Asp Xaa His His Gly Xaa Gly Thr Gln
1 5 10

<210> 22

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

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<223> Any amino acid

<220>

<221> MOD_RES

<222> (4)

<223> Any amino acid

<400> 22

Val Xaa Thr Xaa Ser His
1 5

<210> 23

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

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<223> Met or Leu

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<223> Any amino acid

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<223> Any amino acid

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<223> Ser or Thr

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Asn Xaa Pro Xaa Xaa Asp Gly Ile Asp Asp Xaa Xaa Tyr
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<210> 24

<211> 6

<212> PRT

<213> Artificial Sequence

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<210> 25

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<212> PRT

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<211> 6

<212> PRT

<213> Homo sapiens

<400> 26

Gly Gly Tyr Glu Asn Pro

1

5

<210> 27

<211> 5

<212> PRT

<213> Homo sapiens

<400> 27

Gly Glu Asp Cys Pro

1

5

<210> 28

<211> 5

<212> PRT

<213> Homo sapiens

<400> 28

Gly Glu Asp Cys Pro

1

5

<210> 29

<211> 5

<212> PRT

<213> Homo sapiens

<400> 29

Gly Asp Asp Cys Pro

1

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<210> 30

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<400> 30

Gly Tyr Asp Cys Pro

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<210> 31

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<212> PRT

<213> Homo sapiens

<400> 31

Gly Val Asp Ser Asp Thr

1

5

<210> 32

<211> 6

<212> PRT

<213> Homo sapiens

<400> 32
Gly Val Asp Ser Asp Thr
1 5

<210> 33
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<400> 33
Gly Val Asp Thr Asp Thr
1 5

<210> 34
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<400> 34
Glu Tyr Ala Phe Pro
1 5

<210> 35
<211> 4
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<400> 35
Glu Tyr Phe Pro
1

<210> 36
<211> 4
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<400> 36
Glu Tyr Phe Pro
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<210> 37
<211> 5
<212> PRT
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<400> 37
Asn Tyr Phe Phe Pro
1 5

<210> 38

<211> 5
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<400> 38
Pro Gly Phe Phe Pro
1 5

<210> 39
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<400> 39
Asp Gly Trp Phe Phe Pro
1 5

<210> 40
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<400> 40
Asn Gly Trp Phe Phe Pro
1 5

<210> 41
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<400> 41
Gln Gly Arg Phe Trp Pro
1 5

<210> 42
<211> 6
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<400> 42
His Gly Thr Phe Phe Pro
1 5

<210> 43
<211> 6
<212> PRT
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<400> 43
Asp Gly Asn Phe Phe Pro
1 5

<210> 44
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<400> 44
Pro Ala Gly Gly Met His His Ala
1 5

<210> 45
<211> 8
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<400> 45
Trp Ala Gly Gly Leu His His Ala
1 5

<210> 46
<211> 8
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<400> 46
Trp Ala Gly Gly Leu His His Ala
1 5

<210> 47
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<400> 47
Trp Ala Gly Gly Leu His His Ala
1 5

<210> 48
<211> 8
<212> PRT
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<400> 48
Trp Ser Gly Gly Trp His His Ala
1 5

<210> 49
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<400> 49
Arg Pro Pro Gly His His Ala
1 5

<210> 50
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<400> 50
Arg Pro Pro Gly His His Ala
1 5

<210> 51
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1 5

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<400> 52
Arg Pro Pro Gly His His Ala
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<400> 53
Arg Pro Pro Gly His His Ala
1 5

<210> 54
<211> 10
<212> PRT
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<400> 54
Tyr Ile Asp Leu Asp Ala His His Cys Asp
1 5 10

<210> 55
<211> 10

<212> PRT
<213> Homo sapiens

<400> 55
Tyr Ile Asp Ile Asp Ile His His Gly Asp
1 5 10

<210> 56
<211> 10
<212> PRT
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<400> 56
Tyr Ile Asp Ile Asp Ile His His Gly Asp
1 5 10

<210> 57
<211> 10
<212> PRT
<213> Homo sapiens

<400> 57
Tyr Ile Asp Ile Asp Ile His His Gly Asp
1 5 10

<210> 58
<211> 10
<212> PRT
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<400> 58
Tyr Val Asp Leu Asp Leu His His Gly Asp
1 5 10

<210> 59
<211> 10
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<400> 59
Ile Val Asp Trp Asp Val His His Gly Asn
1 5 10

<210> 60
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<400> 60
Ile Val Asp Trp Asp Ile His His Gly Asn
1 5 10

<210> 61
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<400> 61
Ile Val Asp Trp Asp Val His His Gly Gln
1 5 10

<210> 62
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<400> 62
Ile Val Asp Trp Asp Val His His Gly Asn
1 5 10

<210> 63
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<400> 63
Ile Val Asp Trp Asp Val His His Gly Asn
1 5 10

<210> 64
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<400> 64
Gly Gly Gly Tyr
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<210> 65
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<400> 65
Gly Gly Gly Tyr
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<210> 66
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Gly Gly Gly Tyr
1

<210> 67
<211> 4
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<400> 67
Gly Gly Gly Tyr
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<210> 68
<211> 4
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Gly Gly Gly Tyr
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<210> 69
<211> 4
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<400> 69
Glu Gly Gly His
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<210> 70
<211> 4
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Glu Gly Gly His
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<210> 71
<211> 4
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<400> 71
Glu Gly Gly Tyr
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<210> 72
<211> 4
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Glu Gly Gly Tyr
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<210> 73

<211> 4

<212> PRT

<213> Homo sapiens

<400> 73

Glu Gly Gly His
1

<210> 74

<211> 74

<212> PRT

<213> Homo sapiens

<400> 74

His His Ala Glu Gln Asp Ala Ala Cys Gly Phe Cys Phe Phe Asn
1 5 10 15

Ser Val Ala Val Ala Arg His Ala Gln Thr Ile Ser Gly His Ala
20 25 30

Leu Arg Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Gly Thr
35 40 45

Gln His Met Phe Glu Asp Asp Pro Ser Val Leu Tyr Val Ser Leu His
50 55 60

Arg Tyr Asp His Gly Thr Phe Phe Pro Met Gly
65 70

<210> 75

<211> 5

<212> PRT

<213> Artificial Sequence

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<220>

<221> MOD_RES

<222> (2)

<223> Cys or Thr

<220>

<221> MOD_RES

<222> (4)

<223> Val or Ile

<400> 75

Asp Xaa Pro Xaa Phe
1 5

<210> 76

<211> 6

<212> PRT

<213> Artificial Sequence

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sequence

<220>

<221> MOD_RES

<222> (2)

<223> Phe or Tyr

<220>

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<222> (4)..(5)

<223> Any amino acid

<400> 76

Gly Xaa Cys Xaa Xaa Asn
1 5

<210> 77

<211> 6

<212> PRT

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sequence

<220>

<221> MOD_RES

<222> (2)

<223> Any amino acid

<220>

<221> MOD_RES

<222> (3)

<223> Val or Phe

<220>

<221> MOD_RES

<222> (5)

<223> Any amino acid

<400> 77

Val Xaa Thr Ser Xaa His
1 5

<210> 78
<211> 5
<212> PRT
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sequence

<220>
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<222> (1)
<223> Hydrophobic amino acid

<220>
<221> MOD_RES
<222> (5)
<223> Tyr or His

<400> 78
Xaa Glu Gly Gly Xaa
1 5